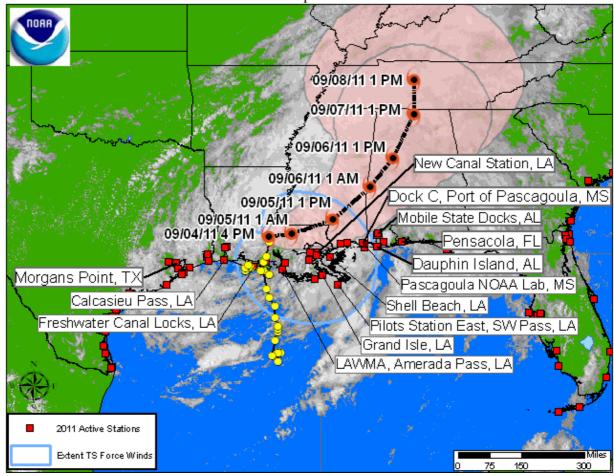


NOAA and NOAA Partnership Stations Relative to the Storm



Storm Analysis

#### LEE made landfall ON THE COAST OF SOUTHERN LOUISIANA earlier this morning 09/04/2011.

As of 09/04/2011 17:00 CDT, water levels along a the northern Gulf of Mexico coastline from the western Florida panhandle to central Louisiana are elevated and range between 1.3 and 3 feet above predictions. Over the past 12 hours, LAWMA, Amerada Pass, LA have finally crested and begun to decrease. They reached a height of 4.2 feet above predictions. Water levels within Lake Pontchartrain are also elevated, partially due to runoff from excessive rainfall. Water level stations to the east of LEE, along the southwestern Louisiana and southeastern Texas coastlines including Galveston Bay, range between 0.5 and 2.5 feet below predictions.

Winds along the storm warning area are gradually decreasing and range between 10-20kts with gusts to 25kts.

Barometric pressure is beginning to level off at many locations.

Water Level and Meteorological plots available below are updated automatically. Water level predictions relative to <u>Mean Lower Low Water</u> are:

LAWMA, Amerada Pass, LA: Next predicted high tides are 1.3 ft (0.40 m) at 09/05/2011 01:12 CDT and 1.4 ft (0.43 m) at 09/06/2011 02:11 CDT.

Grand Isle, LA: Next predicted high tides are 1.5 ft (0.47 m) at 09/05/2011 04:15 CDT and 1.5 ft (0.47 m) at 09/06/2011 05:29 CDT.

Pilots Station East, SW Pass, LA: Next predicted high tides are 1.6 ft (0.50 m) at 09/05/2011 02:43 CDT and 1.6 ft (0.50 m) at 09/06/2011 04:24 CDT.

Shell Beach, LA: Next predicted high tides are 1.6 ft (0.49 m) at 09/05/2011 07:46 CDT and 1.6 ft (0.48 m) at 09/06/2011 08:42 CDT.

New Canal Station, LA: Next predicted high tides are 0.5 ft (0.14 m) at 09/05/2011 14:51 CDT and 0.5 ft (0.14 m) at 09/06/2011 15:37 CDT.

Pascagoula NOAA Lab, MS: Next predicted high tides are 1.7 ft (0.51 m) at 09/05/2011 03:41 CDT and 1.7 ft (0.51 m) at 09/06/2011 04:50 CDT.

Dauphin Island, AL: Next predicted high tides are 1.7 ft (0.52 m) at 09/05/2011 04:47 CDT and 1.7 ft (0.52 m) at 09/06/2011 05:58 CDT.

Mobile State Docks, AL: Next predicted high tides are 2.0 ft (0.60 m) at 09/05/2011 05:57 CDT and 1.9 ft (0.58 m) at 09/06/2011 06:52 CDT.

Pensacola, FL: Next predicted high tides are 1.8 ft (0.56 m) at 09/05/2011 05:08 CDT and 1.8 ft (0.57 m) at 09/06/2011 06:27 CDT.

Freshwater Canal Locks, LA: Next predicted high tides are 2.1 ft (0.65 m) at 09/04/2011 23:17 CDT and 2.2 ft (0.66 m) at 09/06/2011 00:09 CDT.

Calcasieu Pass, LA: Next predicted high tides are 2.2 ft (0.66 m) at 09/05/2011 00:18 CDT and 1.9 ft (0.58 m) at 09/05/2011 07:36 CDT.

Morgans Point, TX: Next predicted high tides are 1.7 ft (0.51 m) at  $09/05/2011 \ 07:04 \text{ CDT}$  and 1.7 ft (0.51 m) at  $09/06/2011 \ 08:03 \text{ CDT}$ .

For additional data, please see the <u>Center for Operational Oceanographic Products & Services</u> website. For information on Highest Astronomical Tide (HAT), NAVD88 and other datums, please see <u>Tidal Datums</u>. For more information or archived products and reports, please see the <u>Storm QuickLook</u> Homepage.

Water levels in bays and associated waterways may include impacts from hydrological forces, including rainfall runoff. For additional hydrological information see <a href="NWS Advanced Hydrologic Prediction Services">NWS Advanced Hydrologic Prediction Services</a> or <a href="National Weather Service Forecast Office">National Weather Service Forecast Office</a>. Future information on this system can be found in public advisories issued by the <a href="Hydrometeorological Prediction Center">Hydrometeorological Prediction Center</a>.

Analyst:WFR

\_\_\_\_\_

#### SELECT NATIONAL HURRICANE CENTER ADVISORY INFORMATION:

TROPICAL STORM LEE ADVISORY NUMBER 13 400 PM CDT SUN SEP 04 2011

...LEE MOVING SLOWLY NORTHWARD OVER SOUTH-CENTRAL LOUISIANA... EXPECTED TO TURN TOWARD THE EAST-NORTHEAST LATER TONIGHT...

#### WATCHES AND WARNINGS

-----

THE TROPICAL STORM WARNING HAS BEEN DISCONTINUED FROM WEST OF MORGAN CITY LOUISIANA WESTWARD TO INTRACOASTAL CITY LOUISIANA.

SUMMARY OF WATCHES AND WARNINGS IN EFFECT...

A TROPICAL STORM WARNING IS IN EFFECT FOR...

\* DESTIN FLORIDA WESTWARD TO MORGAN CITY LOUISIANA...INCLUDING THE CITY OF NEW ORLEANS ...LAKE PONTCHARTRAIN...AND LAKE MAUREPAS

FOR STORM INFORMATION SPECIFIC TO YOUR AREA IN THE UNITED STATES...INCLUDING POSSIBLE INLAND WATCHES AND WARNINGS PLEASE MONITOR PRODUCTS ISSUED BY YOUR LOCAL NATIONAL WEATHER SERVICE FORECAST OFFICE.

#### DISCUSSION AND 48-HOUR OUTLOOK

\_\_\_\_\_

AT 400 PM CDT THE CENTER OF TROPICAL STORM LEE WAS LOCATED ABOUT 30 MI NNE OF LAFAYETTE LOUISIANA, ABOUT 110 MI WNW OF NEW ORLEANS LOUISIANA LEE IS MOVING TOWARD THE NORTH NEAR 5 MPH. SOME ERRATIC MOTION IS POSSIBLE THIS AFTERNOON AND EVENING...AND LEE MAY BECOME STATIONARY BEFORE TURNING TOWARD THE NORTHEAST OR EAST-NORTHEAST BY LATE TONIGHT. ON THE FORECAST TRACK...THE CENTER WILL MOVE SLOWLY OVER SOUTHERN AND SOUTHEASTERN LOUISIANA TONIGHT...AND ACROSS SOUTHERN MISSISSIPPI BY LATE MONDAY.

MAXIMUM SUSTAINED WINDS REMAIN NEAR 45 MPH WITH HIGHER GUSTS. GRADUAL WEAKENING IS FORECAST DURING THE NEXT COUPLE OF DAYS.

TROPICAL-STORM-FORCE WINDS EXTEND OUTWARD UP TO 275 MILES MAINLY EAST AND SOUTHEAST OF THE CENTER OVER WATER.

A NOAA BUOY JUST EAST OF THE MOUTH OF THE MISSISSIPPI RIVER RECENTLY REPORTED A SUSTAINED WIND OF 36 MPH AND A GUST TO 43 MPH. SEVERAL OFFSHORE OIL RIGS ALSO CONTINUE TO REPORT SUSTAINED TROPICAL-STORM-FORCE WINDS A FEW HUNDRED FEET ABOVE THE SURFACE WELL TO THE SOUTHEAST OF THE CENTER OF LEE.

A STORM SURGE VALUE OF MORE THAN 2 FEET RECENTLY OCCURRED JUST SOUTH OF MORGAN CITY LOUISIANA AT AMERADA PASS.

REPORTS FROM SURFACE OBSERVATIONS INDICATE THE MINIMUM CENTRAL PRESSURE IS  $987~\mathrm{MB}...29.15$  INCHES.

#### HAZARDS AFFECTING LAND

-----

RAINFALL...TROPICAL STORM LEE IS EXPECTED TO PRODUCE TOTAL RAIN ACCUMULATIONS OF 10 TO 15 INCHES ACROSS THE CENTRAL GULF COAST REGION...WITH POSSIBLE ISOLATED MAXIMUM AMOUNTS OF 20 INCHES THROUGH TUESDAY. HEAVY RAINS WILL CONTINUE TO EXPAND NORTHEASTWARD INTO THE TENNESSEE VALLEY AND SOUTHERN APPALACHIAN MOUNTAINS THROUGH TUESDAY WITH RAINFALL AMOUNTS OF 4 TO 8 INCHES EXPECTED... WITH ISOLATED AMOUNTS OF 10 INCHES POSSIBLE. THESE RAINS ARE EXPECTED TO CAUSE EXTENSIVE FLOODING AND FLASH FLOODING.

STORM SURGE...ELEVATED WATER LEVELS OF AS MUCH AS 3 TO 5 FEET ABOVE GROUND LEVEL WILL CONTINUE TO OCCUR OVER PORTIONS OF SOUTHEASTERN LOUISIANA AND COASTAL PORTIONS OF WESTERN MISSISSIPPI...AND BY AS MUCH AS 1 TO 3 FEET ABOVE GROUND LEVEL ELSEWHERE WITHIN THE TROPICAL STORM WARNING AREA. ELEVATED WATER LEVELS WILL BE SLOW TO RECEDE DUE TO PERSISTENT ONSHORE WINDS.

WIND...TROPICAL STORM CONDITIONS ARE EXPECTED TO CONTINUE OVER PORTIONS OF THE WARNING AREA TONIGHT AND MONDAY.

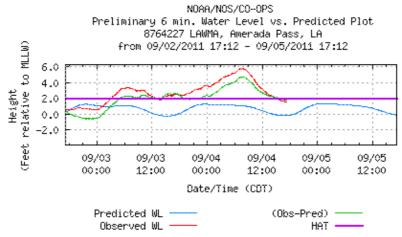
TORNADOES...A FEW TORNADOES WILL BE POSSIBLE TONIGHT AND MONDAY OVER PORTIONS OF SOUTHERN LOUISIANA...SOUTHERN MISSISSIPPI...SOUTHERN ALABAMA...THE FLORIDA PANHANDLE...AND EXTREME SOUTHWESTERN GEORGIA.

## FORECASTER STEWART

For the purpose of timely release, data contained within this QuickLook have undergone a "limited" NOS Quality Assurance/Control; however, the data have not yet undergone final verification. All data subject to NOS verification.

Jump to: LAWMA, Amerada Pass - Water Level, LAWMA, Amerada Pass - Winds, LAWMA, Amerada Pass - Barometric, LAWMA, Amerada Pass - Air/Water Temp, Grand Isle - Water Level, Pilots Station East, SW Pass - Water Level, Pilots Station East, SW Pass - Winds, Shell Beach - Water Level, Shell Beach - Winds, Shell Beach - Barometric, New Canal Station - Water Level, New Canal Station - Winds, New Canal Station - Barometric, Pascagoula NOAA Lab - Water Level, Dock C, Port of Pascagoula - Winds, Dock C, Port of Pascagoula - Barometric, Dauphin Island - Water Level, Dauphin Island - Winds, Mobile State Docks - Water Level, Pensacola - Barometric, Freshwater Canal Locks - Water Level, Freshwater Canal Locks - Water Level, Freshwater Canal Locks - Winds, Calcasieu Pass - Barometric, Morgans Point - Water Level,

#### LAWMA, Amerada Pass, LA - Return to List

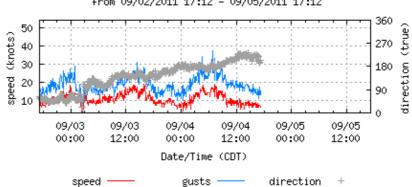


Last Observed Sample: 09/04/2011 17:12 (CDT)

Relative to MLLW: Observed: 1.54 ft. Predicted: -0.19 ft. Residual: 1.73 ft. Historical Maximum Water Level: Sep 12 2008, 5.92 ft. above MHHW

## LAWMA, Amerada Pass, LA - Return to List

NOAA/NOS/CO-OPS Wind Speed/Gusts/Dir 8764227 LAWMA, Amerada Pass, LA from 09/02/2011 17:12 - 09/05/2011 17:12

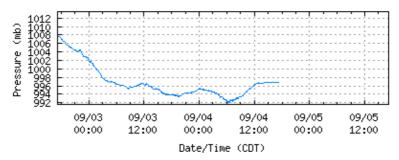


Last Observed Sample: 09/04/2011 17:12 (CDT)

Wind Speed: 6 knots Gusts: 13 knots Direction: 205° T

## LAWMA, Amerada Pass, LA - Return to List

NOAA/NOS/CO-OPS Barometric Pressure Plot 8764227 LAWMA, Amerada Pass, LA from 09/02/2011 17:12 - 09/05/2011 17:12

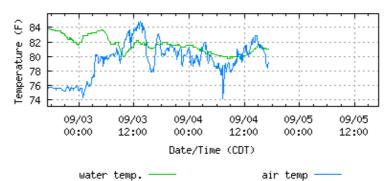


barometric pressure ——

Last Observed Sample: 09/04/2011 17:12 (CDT)
Barometric Pressure: 996.8 mb

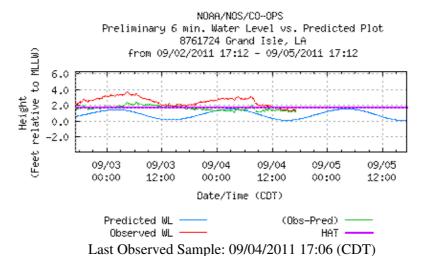
## LAWMA, Amerada Pass, LA - Return to List

NOAA/NOS/CO-OPS Air/Water Temperature Plot 8764227 LAWMA, Amerada Pass, LA from 09/02/2011 17:12 - 09/05/2011 17:12



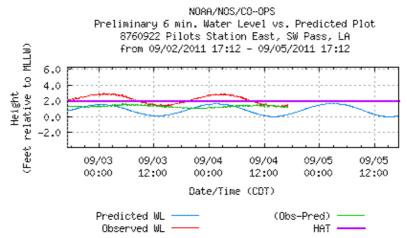
Last Observed Sample: 09/04/2011 17:12 (CDT)
Water Temperature: 81.0° F Air Temperature: 79.2° F

## Grand Isle, LA - Return to List



Relative to MLLW: Observed: 1.41 ft. Predicted: 0.20 ft. Residual: 1.21 ft. Historical Maximum Water Level: Aug 29 2005, 4.54 ft. above MHHW

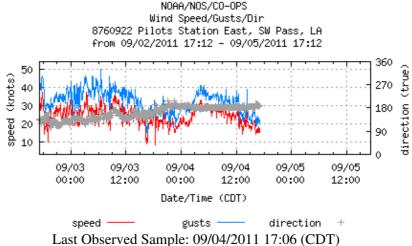
## Pilots Station East, SW Pass, LA - Return to List



Last Observed Sample: 09/04/2011 17:06 (CDT)

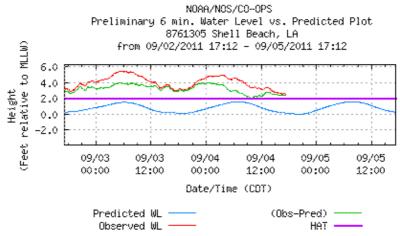
Relative to MLLW: Observed: 1.48 ft. Predicted: 0.27 ft. Residual: 1.21 ft. Historical Maximum Water Level: Aug 29 2005, 6.22 ft. above MHHW

#### Pilots Station East, SW Pass, LA - Return to List



Wind Speed: 15 knots Gusts: 20 knots Direction: 188° T

## Shell Beach, LA - Return to List



Last Observed Sample: 09/04/2011 17:12 (CDT)

Relative to MLLW: Observed: 2.56 ft. Predicted: 0.15 ft. Residual: 2.41 ft. Historical Maximum Water Level: Sep 1 2008, 8.84 ft. above MHHW

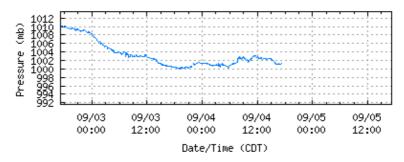
# Shell Beach, LA - Return to List

NOAA/NOS/CO-OPS Wind Speed/Gusts/Dir 8761305 Shell Beach, LA from 09/02/2011 17:12 - 09/05/2011 17:12 360 50 speed (knots) 270 40 30 direction 180 20 10 09/03 09/03 09/04 09/05 09/05 09/04 00:00 12:00 00:00 12:00 00:00 12:00 Date/Time (CDT) gusts direction speed

Last Observed Sample: 09/04/2011 17:12 (CDT) Wind Speed: 17 knots Gusts: 21 knots Direction: 157° T

## Shell Beach, LA - Return to List

NOAA/NOS/CO-OPS Barometric Pressure Plot 8761305 Shell Beach, LA from 09/02/2011 17:12 - 09/05/2011 17:12

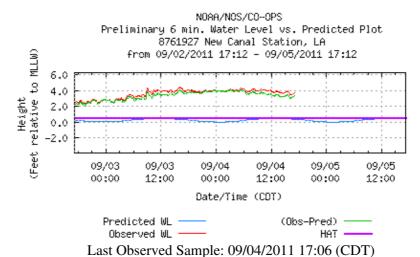


barometric pressure ——

Last Observed Sample: 09/04/2011 17:12 (CDT)

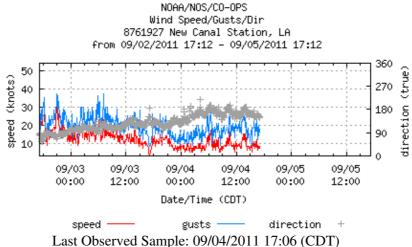
Barometric Pressure: 1001.2 mb

## New Canal Station, LA - Return to List



Relative to MLLW: Observed: 3.74 ft. Predicted: 0.36 ft. Residual: 3.38 ft. Historical Maximum Water Level: Sep 13 2008, 4.98 ft. above MHHW

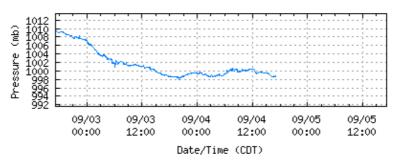
#### New Canal Station, LA - Return to List



Wind Speed: 8 knots Gusts: 17 knots Direction: 151° T

## New Canal Station, LA - Return to List

NOAA/NOS/CO-OPS Barometric Pressure Plot 8761927 New Canal Station, LA from 09/02/2011 17:12 - 09/05/2011 17:12



barometric pressure —— Last Observed Sample: 09/04/2011 17:06 (CDT)

Barometric Pressure: 998.6 mb

#### Pascagoula NOAA Lab, MS - Return to List

NOAA/NOS/CO-OPS Preliminary 6 min. Water Level vs. Predicted Plot 8741533 Pascagoula NOAA Lab, MS Height (Feet relative to MLLW) from 09/02/2011 17:12 - 09/05/2011 17:12 6.0 4.0 2.0 0.0 -2.0 09/03 09/03 09/04 09/04 09/05 09/05 00:00 12:00 12:00 00:00 12:00 00:00 Date/Time (CDT) Predicted WL (Obs-Pred)

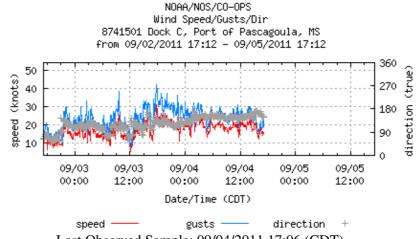
Observed WL

Last Observed Sample: 09/04/2011 17:12 (CDT)

HAT

Relative to MLLW: Observed: 1.82 ft. Predicted: -0.04 ft. Residual: 1.86 ft. Historical Maximum Water Level: Sep 1 2008, 4.9 ft. above MHHW

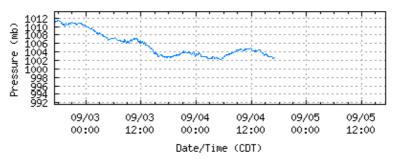
## Dock C, Port of Pascagoula, MS - Return to List



Last Observed Sample: 09/04/2011 17:06 (CDT) Wind Speed: 15 knots Gusts: 22 knots Direction: 154° T

## Dock C, Port of Pascagoula, MS - Return to List

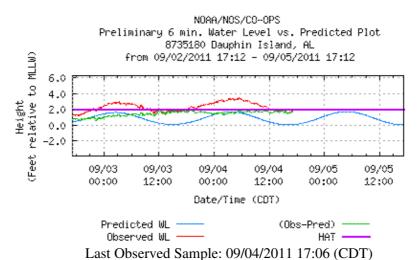
NOAA/NOS/CO-OPS Barometric Pressure Plot 8741501 Dock C, Port of Pascagoula, MS from 09/02/2011 17:12 - 09/05/2011 17:12



barometric pressure —— Last Observed Sample: 09/04/2011 17:06 (CDT)

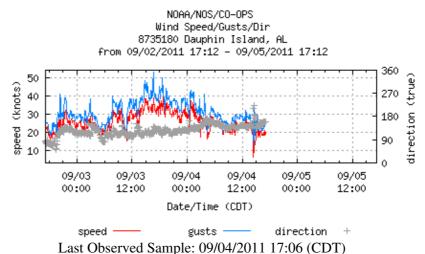
Barometric Pressure: 1002.7 mb

## Dauphin Island, AL - Return to List



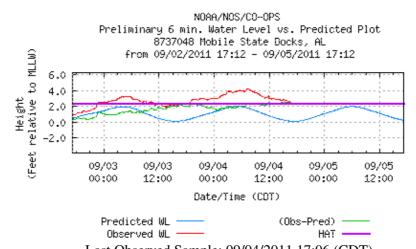
Relative to MLLW: Observed: 1.82 ft. Predicted: 0.07 ft. Residual: 1.75 ft. Historical Maximum Water Level: Sep 2 1985, 3.36 ft. above MHHW

## Dauphin Island, AL - Return to List



Wind Speed: 19 knots Gusts: 26 knots Direction: 160° T

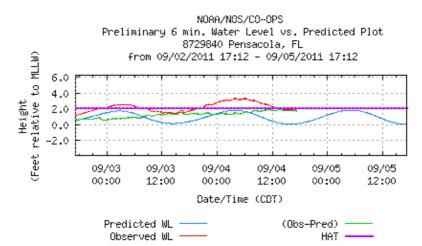
#### Mobile State Docks, AL - Return to List



Last Observed Sample: 09/04/2011 17:06 (CDT)
Relative to MLLW: Observed: 2.36 ft. Predicted: 0.11 ft. Residual: 2.25 ft.

Historical Maximum Water Level: Sep 26 2002, 3.64 ft. above MHHW

## Pensacola, FL - Return to List

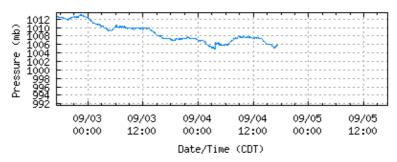


Last Observed Sample: 09/04/2011 17:12 (CDT)

Relative to MLLW: Observed: 1.82 ft. Predicted: 0.11 ft. Residual: 1.71 ft. Historical Maximum Water Level: Sep 18 1926, 7.41 ft. above MHHW

## Pensacola, FL - Return to List

NOAA/NOS/CO-OPS Barometric Pressure Plot 8729840 Pensacola, FL from 09/02/2011 17:12 - 09/05/2011 17:12

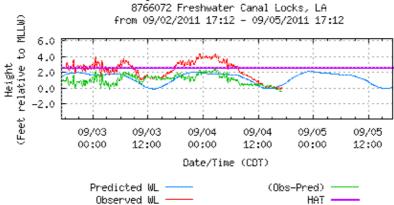


barometric pressure

Last Observed Sample: 09/04/2011 17:12 (CDT) Barometric Pressure: 1005.8 mb

# Freshwater Canal Locks, LA - Return to List

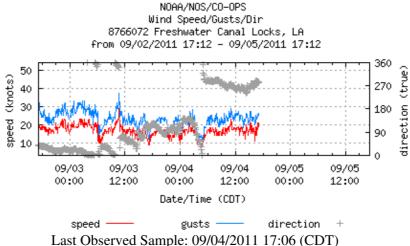
NOAA/NOS/CO-OPS Preliminary 6 min. Water Level vs. Predicted Plot 8766072 Freshwater Canal Locks, LA from 09/02/2011 17:12 - 09/05/2011 17:12



Last Observed Sample: 09/04/2011 17:06 (CDT)

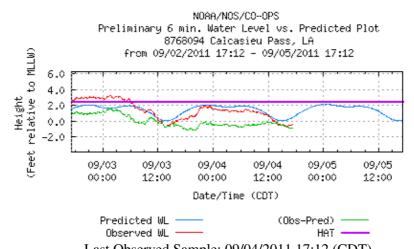
Relative to MLLW: Observed: 0.04 ft. Predicted: 0.39 ft. Residual: -0.35 ft. Historical Maximum Water Level: Sep 12 2008, 7.98 ft. above MHHW

## Freshwater Canal Locks, LA - Return to List



Wind Speed: 19 knots Gusts: 25 knots Direction: 283° T

## Calcasieu Pass, LA - Return to List



Last Observed Sample: 09/04/2011 17:12 (CDT)
Relative to MLLW: Observed: -0.41 ft. Predicted: 0.45 ft. Residual: -0.86 ft.

Historical Maximum Water Level: Sep 13 2008, 9.96 ft. above MHHW

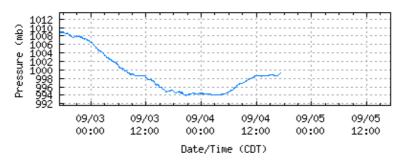
# Calcasieu Pass, LA - Return to List

NOAA/NOS/CO-OPS Wind Speed/Gusts/Dir 8768094 Calcasieu Pass, LA from 09/02/2011 17:12 - 09/05/2011 17:12 360 50 speed (knots) 270 40 30 direction 180 20 10 09/03 09/03 09/04 09/04 09/05 09/05 00:00 12:00 00:00 12:00 00:00 12:00 Date/Time (CDT) gusts direction speed Last Observed Sample: 09/04/2011 17:12 (CDT)

Wind Speed: 16 knots Gusts: 22 knots Direction: 342° T

## Calcasieu Pass, LA - Return to List

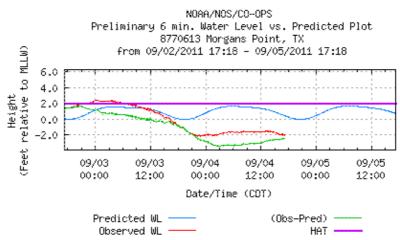
NOAA/NOS/CO-OPS Barometric Pressure Plot 8768094 Calcasieu Pass, LA from 09/02/2011 17:12 - 09/05/2011 17:12



barometric pressure —— Last Observed Sample: 09/04/2011 17:12 (CDT)

Barometric Pressure: 999.2 mb

## Morgans Point, TX - Return to List



Last Observed Sample: 09/04/2011 17:12 (CDT)

Relative to MLLW: Observed: -1.95 ft. Predicted: 0.43 ft. Residual: -2.38 ft.

Historical Maximum Water Level: Sep 12 2008, 5.19 ft. above MHHW

Center for Operational Oceanographic Products & Services (CO-OPS) | National Ocean Service (NOS) National Oceanic and Atmospheric Administration | U.S. Department of Commerce